

## IN THE UNITED STATED PATENT AND TRADEMARK OFFICE

In re Application of: Edward L. Sughrue II, Bobby G. Cockrell, Glenn W. Dodwell and Brent J. Bertus

For: DESULFURIZATION WITH OCTANE ENHANCEMENT

# 17507 U.S. PTO 10/607043

#### **LETTER**

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Attached hereto for filing in the United Stated Patent and Trademark Office is the patent application identified above. This application contains 3 sheet(s) of drawings.

The filing fee has been computed as follows:

Basic Fee	\$750.00
Additional Fees:	
Total Number of claims (whether independent or dependent	
over 20, times \$18.00	\$810.00
Number of independent claims over 3, times \$84.00	000.00
Multiple Dependent Claims (\$280)	000.00
TOTAL Filing Fee	1560.00

Please charge Deposit Account 16-1575 in the amount of the total filing fee stated above. The Commissioner is hereby authorized to charge any additional fees which may be required under 37 CFR 1.16 or 37 CFR 1.17, or credit any overpayment, to Deposit Account 16-1575, but is not authorized to charge any fee provided for under 37 CFR 1.18.

If the Examiner wishes to contact representatives of record concerning the accompanying application prior to the first Official Action, such contact should be made with the undersigned.

The following items are brought to the Examiner's attention:

U.S. 6,323,384 (Powers et al., Nov. 27, 2001) – Discloses one dimensional, intermediate pore size zeolites for isomerization of linear alkenes to methyl branched alkenes and that activity and selectivity critically depend on the properties of the zeolite. The patent does not disclose or suggest addition of a zeolite to a sulfur-removal process wherein the entire catalyst system can be regenerated and reused.

U.S. 6,274,533 (Khare, Aug. 14, 2001) – Discloses the use of a zeolite as a possible inorganic carrier. The present invention is a patentable improvement over '533 in the recitation of use of a zeolite with a sulfur removal sorbent in a sulfur removal process, wherein the entire catalyst system can be regenerated and reused.

U.S. 6,162,352 (Wu et al., Dec. 19, 2000) – Discloses a catalyst for hydrodesulfurization of gasoline while maintaining octane. The present invention is a patentable improvement in the recitation of use of a zeolite with a sulfur removal sorbent in a sulfur removal process, wherein the entire catalyst system can be regenerated and reused.

U.S. 6,042,719 (Shih, Mar. 28, 2000) – Discloses a dual functional catalyst to remove sulfur and maintain octane. The patent does not disclose or suggest addition of a zeolite to a sulfur-removal process wherein the entire catalyst system can be regenerated and reused.

U.S. 5,378,352 (Degnan et al., Jan. 3, 1995) – Discloses a single stage process to reduce sulfur without affecting octane. There are no experimental examples using mordenite and the patent does not disclose or suggest addition of a zeolite to a sulfur-removal process wherein the entire catalyst system can be regenerated and reused.

U.S. 4,6784,745 (Nace, Nov. 15, 1988) – Discloses a process to treat fluidized catalytic cracking (FCC) products at low severity over shape-selective zeolites. The patent does not disclose

or suggest addition of a zeolite to a sulfur-removal process wherein the entire catalyst system can be regenerated and reused.

Respectfully submitted,

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Alexandria, VA 22313-1450, on

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#### **CERTIFICATE OF MAILING BY "EXPRESS MAIL"**

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

I hereby certify that this application is being deposited with the United States Postal Service "Express Mail Post Office To Addressee" service under 37 C.F.R. 1.10 on the date indicated above and is addressed to the Commissioner for Patents, Alexandria, VA 22313-1450.

Respectfully submitted,

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